

WHAT IS CLAIMED IS:

1. A method for eliciting an immune response against EBV in a subject, said method comprising:

(a) identifying a subject in need of vaccination against EBV, wherein said subject
5 expresses one or more HLA class II molecules selected from the group consisting of HLA-DR1, HLA-DR7, HLA-DR16, HLA-DR52, HLA-DQ2, and HLA-DQ7; and

(b) administering to said subject an EBV peptide epitope having the amino acid sequence set forth in SEQ ID NO:1.

2. The method of claim 1, further comprising administering to said subject one or
10 more immune-enhancing agents.

3. The method of claim 2, wherein said one or more immune-enhancing agents comprise an adjuvant.

4. The method of claim 3, wherein said adjuvant is Montanide ISA-51.

5. The method of claim 2, wherein said one or more immune-enhancing agents
15 comprise a cytokine.

6. The method of claim 5, wherein said cytokine is granulocyte macrophage-colony stimulating factor.

7. The method of claim 2, wherein said one or more immune-enhancing agents comprise a co-stimulatory molecule.

8. The method of claim 1, wherein said subject has, is suspected of having, or is at
20 risk for a post-transplant lymphoproliferative disorder.

9. A method for eliciting an immune response in a subject, said method comprising administering to said subject (a) an EBV peptide epitope having the amino acid sequence set forth in SEQ ID NO:1, and (b) one or more immune-enhancing agents.

10. The method of claim 9, wherein said subject expresses one or more HLA class II molecules selected from the group consisting of HLA-DR1, HLA-DR7, HLA-DR16, HLA-DR52, HLA-DQ2, and HLA-D7.

11. The method of claim 9, wherein said one or more immune-enhancing agents
5 comprise an adjuvant.

12. The method of claim 11, wherein said adjuvant is Montanide ISA-51.

13. The method of claim 9, wherein said one or more immune-enhancing agents comprise a cytokine.

14. The method of claim 13, wherein said cytokine is granulocyte macrophage-colony
10 stimulating factor.

15. The method of claim 9, wherein said one or more immune-enhancing agents comprise a co-stimulatory molecule.

16. A method for activating a T cell, said method comprising contacting said T cell with an EBV peptide epitope having the amino acid sequence set forth in SEQ ID NO:1,
15 wherein said EBV peptide epitope is bound to an HLA class II molecule selected from the group consisting of HLA-DR1, HLA-DR7, HLA-DR16, HLA-DR52, HLA-DQ2, and HLA-DQ7.

17. The method of claim 16, wherein said contacting is *in vitro*.

18. The method of claim 16, wherein said T cell is in a subject.

19. The method of claim 18, wherein said subject is a human.
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20. The method of claim 18, wherein prior to said contacting, said EBV peptide epitope is administered to said subject.

21. The method of claim 18, further comprising administering to said subject one or more immune-enhancing agents.

22. The method of claim 21, wherein said one or more immune-enhancing agents comprise an adjuvant.

23. The method of claim 22, wherein said adjuvant is Montanide ISA-51.

24. The method of claim 21, wherein said one or more immune-enhancing agents
5 comprise a cytokine.

25. The method of claim 24, wherein said cytokine is granulocyte macrophage-colony stimulating factor.

26. The method of claim 21, wherein said one or more immune-enhancing agents comprise a co-stimulatory molecule.

10 27. The method of claim 16, wherein said HLA class II molecule is expressed on the surface of an antigen presenting cell (APC) containing a recombinant nucleotide sequence encoding the EBV peptide epitope.

28. The method of claim 27, wherein said contacting is *in vitro*.

29. The method of claim 27, wherein said T cell is in a subject.

15 30. The method of claim 29, wherein said subject is a human.

31. The method of claim 29, further comprising administering to said subject one or more immune-enhancing agents.

32. The method of claim 31, wherein said one or more immune-enhancing agents comprise an adjuvant.

20 33. The method of claim 32, wherein said adjuvant is Montanide ISA-51.

34. The method of claim 31, wherein said one or more immune-enhancing agents comprise a cytokine.

35. The method of claim 34, wherein said cytokine is granulocyte macrophage-colony stimulating factor.

36. The method of claim 31, wherein said one or more immune-enhancing agents comprise a co-stimulatory molecule.

5 37. The method of claim 29, wherein prior to said contacting, a nucleic acid comprising said recombinant nucleotide sequence is administered to said subject.

38. The method of claim 29, wherein said APC is a cell, or a progeny of a cell, that has been returned to said subject after the steps of:

- 10 (a) removing from said subject a sample of cells comprising said cell or a precursor of said cell; and
- (b) transducing or transfecting said cell, or a precursor of said cell, with a nucleic acid comprising said recombinant nucleotide sequence.

39. The method of claim 27, wherein said APC is selected from the group consisting of a dendritic cell, a macrophage, a monocyte, and a B lymphocyte.

15 40. The method of claim 27, wherein said APC expresses, naturally or recombinantly, a co-stimulatory molecule.

41. The method of claim 40, wherein said co-stimulatory molecule is selected from the group consisting of B7-1, B7-2, B7-H1, B7-H2, B7-H3, B7-H4, and 4-1BB ligand.

20 42. An *ex vivo* method for treating a lymphoproliferative disorder, said method comprising:

- (a) providing a population of cells comprising T cells;
 - (b) activating said T cells *in vitro* with an EBV peptide epitope having the amino acid sequence set forth in SEQ ID NO:1; and
 - (c) administering said activated T cells to a subject, wherein said subject has, is
- 25 suspected to have, or is at risk for said lymphoproliferative disorder.

43. The method of claim 42, wherein said lymphoproliferative disorder is post-transplant lymphoproliferative disorder.

44. The method of claim 42, wherein said population of T cells is obtained from said subject.

5 45. A composition comprising:
(a) an Epstein Barr virus (EBV) peptide epitope having the amino acid sequence set forth in SEQ ID NO:1; and
(b) one or more immune-enhancing agents.

46. The composition of claim 45, wherein said one or more immune-enhancing agents
10 comprise an adjuvant.

47. The composition of claim 46, wherein said adjuvant is Montanide ISA-51.

48. The composition of claim 45, wherein said one or more immune-enhancing agents comprise a cytokine.

49. The composition of claim 48, wherein said cytokine is granulocyte macrophage-
15 colony stimulating factor.

50. The composition of claim 45, wherein said one or more immune-enhancing agents comprise a co-stimulatory molecule.

51. A composition comprising:
(a) a recombinant nucleic acid encoding an EBV peptide epitope having the amino
20 acid sequence set forth in SEQ ID NO:1, and
(b) a pharmaceutically acceptable carrier.

52. An article of manufacture comprising:
(a) an EBV peptide epitope having the amino acid sequence set forth in SEQ ID
NO:1; and
25 (b) a label or package insert indicating that said EBV peptide epitope can be administered to a subject in need of vaccination against EBV, wherein said subject

expresses one or more HLA class II molecules selected from the group consisting of HLA-DR1, HLA-DR7, HLA-DR16, HLA-DR52, HLA-DQ2, and HLA-DQ7.